



Pollution Prevention (P2) Within EMS

College & University Forum
August 16, 2001



**Pollution Prevention
Regional Information Center**



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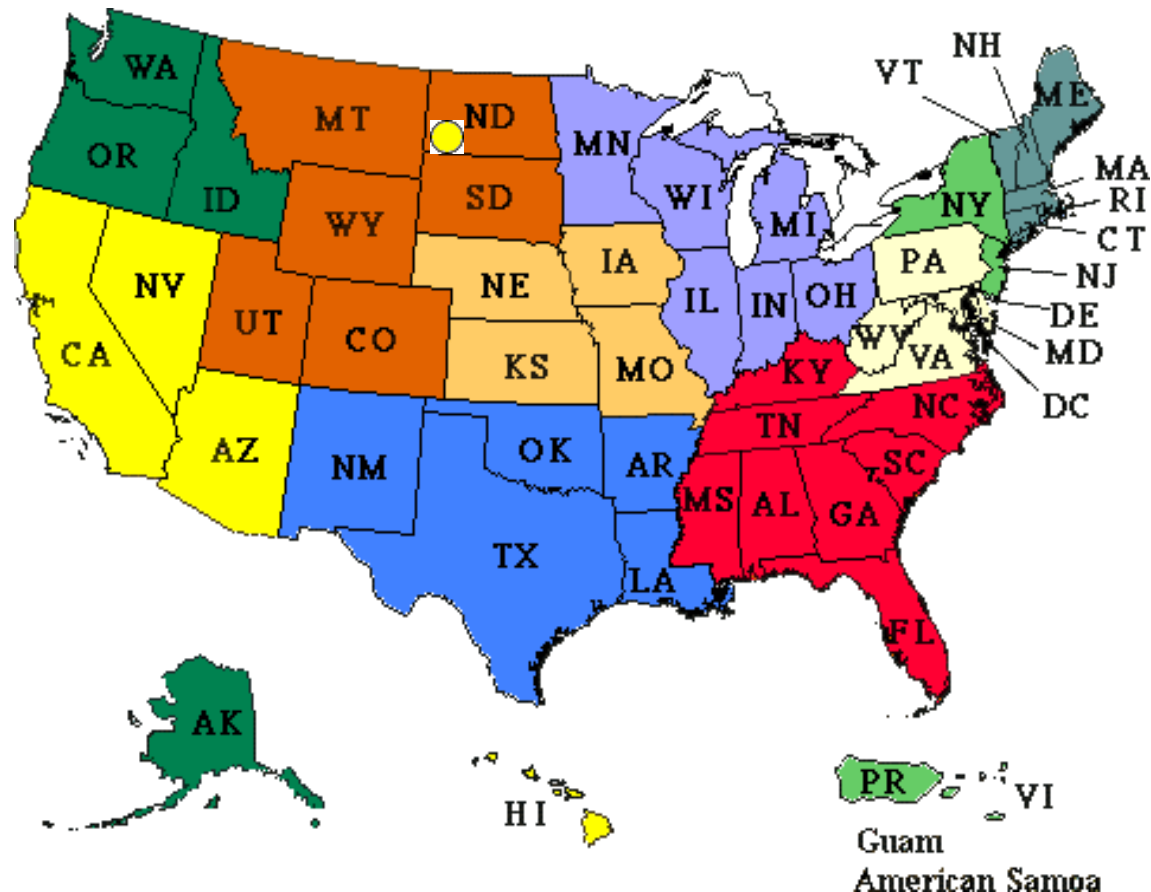
www.p2ric.org

Pollution
Prevention

P2Rx

Resource
Exchange

- Northeast Regional P2 Information Center
 - Waste Reduction Resource Center
 - Great Lakes Regional P2 Information Center
 - Southwest P2 Information Center
 - P2 Regional Information Center
Region 7 - IA, KS, MO, NE
 - Peaks to Prairies P2 Information Center
 - Western Regional P2 Network
 - Northwest P2 Network
- www.p2ric.org / 402-595-2381





Overview

- **Your Expectations for EMS**
- **EMS, Source Reduction & P2**
 - Definition
 - Methods
- **Green Campus Application**
 - Buildings
 - Purchasing
- **Resources**



C&U Expectations for EMS

- **Compliance = minimum standards**
 - How to sell “permission to pollute”?
- **Best reason to change?**
 - Cost center or competitiveness?
 - dreadful consequences, storm a-coming
 - great opportunity, team improvement
 - enrollment & equipment
- **P2 provides a challenge - beyond basics**
- **Resources – existing wheels**
 - reference materials,
 - contacts,
 - tools



EMS, Source Reduction & P2

- **Waste Management Hierarchy**
 - reduce, reuse, recycle, treat, dispose
 - 4 R's: reduce, reuse, recycle, remediate
- **Strategy, ethic - 1st thought**
 - guide to improvement
- **Continuous Improvement**
 - Quality: Plan, Do, Check
- **P2 University**

www.afcee.brooks.af.mil/eq/EET/p2web/index.htm



Pollution Prevention

- **“P2” = productivity + profitability**

P2 is: *best management practices - better performance - cleaner production - design for the environment - energy efficiency - green business - increased efficiency - industrial ecology - least cost - materials efficiency - materials productivity - process efficiency - process improvement - process optimization - reusability - resource efficiency - source reduction - sustainable development - toxic use reduction - waste minimization - waste reduction - water conservation - world class manufacturing*



How To P2

- **Reduce Impact on Environmental Aspects**
- **Planning & Design**
 - **EMS Promotes Planning**
 - **Material Substitution**
 - **Toxics Use Reduction (TUR)**
 - **Design for Environment (DfE)**
 - **Fewer parts**
 - **Less impact**
 - **Transportation & sprawl**
 - **Heat Islands**



How To P2

- **Process & Operations:**
 - EMS provides systematic approach to integrate environmental considerations into all functions
 - **Procedural Changes**
 - Need to clean
 - Water is not a broom
 - **Equipment Upgrades**
 - Technology Transfer
 - **Preventive Maintenance**
 - **Employee Training**



Green Campus - Opportunity

- **Sustainable communities, DOD**
- **Suggestions**
 - **Eliminate pollution control system**
 - **Reduced compliance costs**
 - **Avoided fines**
 - **Less reporting**
 - **Reduced waste management cost**
 - **Improved institutional image**
 - **Resource conservation**



Green Campus - Building

- **Green buildings - AIA**
- **Energy Efficiency**
 - EPA Energy Star
 - DOE
 - ASHRAE
- **Maintenance**
- **Land use/planning**
 - Energy impact
 - Water use



Green Campus - Other

- **Purchasing**
 - EPA EPP
 - GSA, DOD & Green Seal
- **Laboratories**
 - Micro chemistry
- **Grounds-keeping**
- **Fleet Maintenance**
- **Energy production**



Take Away

- **Best opportunities lie upstream**
- **Set the goal “beyond compliance”**
- **Define the right problem**
- **Check existing solutions**
- **Multiple resources exist to assist**
- **Develop unique regional resource**